

# SEQUENCE LISTING

<110> NIKOLICH, MIKELJON  
HOOVER, DAVID

<120> IMMUNOGENIC COMPOSITIONS INCLUDING ROUGH PHENOTYPE BRUCELLA HOST STRAINS  
AND COMPLEMENTATION DNA FRAGMENTS

<130> ARMY 176

<140> NOT KNOWN

<141> 2003-12-11

<150> US 60/402,164  
US 60/533,016

<151> 2002-12-12  
2003-09-15

<160> 2

<210> SEQ ID NO 1

<211> LENGTH: 2693

<212> TYPE: DNA

<213> ORGANISM: Brucella melitensis

<220> FEATURE:

<400> SEQUENCE: 1

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actggattgg	atggatatac	agaccttgga	tacgtcccag	240
atgctgaaca	gcgggggttc	atctttgcag	acggagcagc	280
cctccacatc	aatagcctgt	ttgcagataa	taacaagggt	320
gatggcgtgt	tttgccaaaa	cgtccaatac	gtagatggaa	360
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ttttatcaac	gtagatcgca	taaacatcaa	tacgatccgc	440
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cacggttttt	atagccaagc	tcaggacatt	ttggttaatg	600
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<210> SEQ ID NO 2

<211> LENGTH: 410

<212> TYPE: PRT

<213> ORGANISM: Brucella melitensis

<400> SEQUENCE: 2

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Val	Thr	Lys	Asn	Ile	Val	Arg	Met	Leu	Leu
				25					30
Lys	Gly	Ser	Gln	Asn	Tyr	Gly	Glu	Gln	Cys
				35					40
Gln	Val	Arg	Leu	Ala	Val	Arg	Ala	Asp	Thr
				45					50
Tyr	Asp	Ile	Gly	Glu	Glu	Phe	Arg	Asp	Leu
				55					60

Ile Asp Asn Gly Val Glu Val Arg Glu Ile	65	70
Ser Phe Lys Glu Val Pro Pro Glu Asp Val	75	80
Asn Asn Ala Asn Tyr Phe Gln Gly Arg Asn	85	90
Ile Asp Leu Gln Ser Arg Thr Tyr Trp Leu	95	100
Met Glu Asp Gly Gln Asn Asn Cys Ala Asp	105	110
Ser Asp Leu Trp Leu Val Val Ser Tyr Ser	115	120
Val Glu Tyr Pro Ile Ala Pro Ile Arg Pro	125	130
Thr Leu Ile Phe Ala Thr Asp Phe Ile Gln	135	140
Arg Tyr Val Pro Asp Ile Ile Trp Pro Pro	145	150
Arg Pro Gly Glu Gly Asp Ala Glu Ala Leu	155	160
Ala Phe Leu Arg Gln Ser Asp Gly Val Leu	165	170
Ala Thr Thr Pro His Thr Arg Leu Asp Ala	175	180
Ile Ser Tyr Ala Gly Leu Pro Ala Ser Lys	185	190
Val Tyr Leu Ala Pro Met Glu Phe Asp Pro	195	200
Thr Phe Leu Asp Arg Tyr Arg Ser Val Ser	205	210
Lys Val Lys Glu Pro Tyr Phe Leu Trp Pro	215	220
Thr Asn Pro Asn Ala His Lys Asn His Ala	225	230
Lys Ala Phe Gln Ala Leu Asp Leu Tyr Tyr	235	240
Gly Lys Leu Lys Gly Lys Ile Lys Thr Lys	245	250
Ile Val Gly Val Ser Ser Val Arg Met Asp	255	260
Pro Ser His Arg Trp Gln Ala Lys Tyr Glu	265	270
Asn Lys Ala Tyr Val Lys Ser Val Arg Glu	275	280
Ile Val Ala Gly Leu Asp Asn Leu Lys Ser	285	290
Asn Val Glu Phe Ala Gly Glu Val Ala Asp	295	300
Lys Glu Tyr Ala Glu Leu Leu Ala Ser Ala	305	310
Cys Phe Leu Trp His Pro Thr Leu Ala Asp	315	320
Asn Gly Thr Phe Ala Ala Val Glu Ala Ala	325	330
Tyr Met Gly Cys Pro Thr Leu Ser Asn Asp	335	340

Tyr Pro Gln Met Arg Tyr Ile Ser Asn Arg  
345 350  
Phe Glu Ile Pro Met Gln Tyr Phe Asn Ala  
355 360  
Arg Ser Val Lys Glu Met Ala Ser Ala Leu  
365 370  
Lys Gln Met Glu Glu Thr Pro Ile Asp Val  
375 380  
Gly Leu Leu Pro Ser Arg glu Thr Leu Ser  
385 390  
Leu His Ser Trp Glu Ala His Ala Ser Glu  
395 400  
Tyr Trp Asp Val Ile Val Arg Ala Ala Ala  
405 410